

Title (en)

Method and apparatus for data communication in LTE cellular networks

Title (de)

Verfahren und Vorrichtung zur Datenübertragung in zellulären LTE-Netzwerken

Title (fr)

Procédé et appareil pour la communication de données dans des réseaux cellulaires LTE

Publication

EP 2334122 A1 20110615 (EN)

Application

EP 09179085 A 20091214

Priority

EP 09179085 A 20091214

Abstract (en)

The invention provides methods and apparatus for uplink data transmission in a Long Term Evolution (LTE) compliant communication system. In particular, beam-forming in the uplink is used to increase the range of LTE compliant wireless communication terminals. Methods are provided for steering the beam in an optimal direction towards the base station, both for time division duplex (TDD) and a frequency division duplex (FDD) communication schemes.

IPC 8 full level

H04W 52/14 (2009.01); **H04B 7/04** (2006.01); **H04B 7/06** (2006.01)

CPC (source: EP US)

H04B 7/0413 (2013.01 - EP US); **H04B 7/0671** (2013.01 - EP US); **H04B 7/0682** (2013.01 - EP US); **H04W 52/146** (2013.01 - EP US); **H04B 7/0404** (2013.01 - EP)

Citation (applicant)

US 2009069057 A1 20090312 - HAARTSEN JACOBUS CORNELIS [NL], et al

Citation (search report)

- [A] US 2009069057 A1 20090312 - HAARTSEN JACOBUS CORNELIS [NL], et al
- [A] WO 2008118921 A2 20081002 - CISO TECHNOLOGY INC [US], et al
- [A] US 2009231196 A1 20090917 - NIU HUANING [US], et al

Cited by

EP3869852A4; CN111654920A; EP4290910A4; CN112262592A; EP3843316A1; US10389428B2; US11405825B2; WO2018097903A1; WO2015199603A1; WO2013024942A1; US10750525B2; US11818709B2; US8594053B2; US9571171B2; EP2355362A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

EP 09179085 A 20091214; CN 201010592978 A 20101214; US 96368310 A 20101209